

## WIRELESS COMMUNICATION OVER A TRANSDUCER DEVICE

## ABSTRACT OF THE DISCLOSURE

One aspect of the present invention is generally directed towards a system and method of tuning a transducer for transmitting and receiving a wireless signal. In an illustrative embodiment, a single transducer is coupled to a first or second circuit for either transmitting or receiving, respectively. Generally, electrical characteristics of the first circuit are adjusted to increase a magnetic field generated by the transducer. Conversely, electrical characteristics of the second circuit are adjusted to increase a signal generated by the transducer for receiving a magnetic field. Accordingly, a single transducer device can be tuned for either transmitting or receiving a corresponding wireless signal.